IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

FRACTUS, S.A.,

Plaintiff,

v.

AT&T MOBILITY LLC,

Defendant,

SPRINT COMMUNICATIONS COMPANY, L.P., ET AL.,

Defendants,

T-MOBILE US, INC., ET AL.,

Defendants,

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS,

Defendant,

COMMSCOPE TECHNOLOGIES LLC and CELLMAX TECHNOLOGIES AB,

Intervenor-Defendants.

JURY TRIAL DEMANDED

Case No. 2:18-cv-00135-JRG

LEAD CASE

Case No. 2:18-cv-00136-JRG

Case No. 2:18-cv-00137-JRG

Case No. 2:18-cv-00138-JRG

PLAINTIFF FRACTUS, S.A.'S MOTION TO ENFORCE ORDER FOCUSING PATENT CLAIMS AND PRIOR ART

I. Introduction

Plaintiff Fractus, S.A. ("Fractus") respectfully submits this motion requesting an order enforcing the Courts' February 6, 2019 Order Focusing Patent Claims and Prior Art to Reduce Costs ("Focusing Order"), Dkt. 158, by compelling Defendants to narrow their asserted prior art references from 62 to 12 per patent.

In compliance with its obligations under the Focusing Order, Fractus made a preliminary election of 32 claims on February 11, 2019, and subsequently elected to accelerate a further narrowing of claims to eliminate all but one asserted patent family. Declaration of Luke Burton in Support of Motion to Enforce Order Focusing Patent Claims and Prior Art Ex. 1 ("Burton Decl."). Defendants were required to make a preliminary narrowing of prior art references on February 28, reducing the number of references to no more than 12 per patent (or 60 overall). Defendants served their election, but it does not comply with the Focusing Order. Dkt. 158 at 2. For each of the five remaining patents, Defendants assert the same prior art references. But rather than asserting only 12 references per patent, Defendants have asserted a total of 62 prior art references against each of the patents, including:

- At least 26 antennas claimed as prior art instrumentalities,
- 20 patents, and
- At least 16 printed publications.

Burton Decl. Ex. 2. Defendants' disregard of the Focusing Order creates a significant and one-sided burden on Fractus, and undermines the Focusing Order's stated purpose of "streamlin[ing] the issues in this case to promote a 'just, speedy, and inexpensive determination' of this action, as required by Federal Rule of Civil Procedure 1." Dkt. 158 at 1. Defendants should be required to comply with the Court's Focusing Order and narrow to the maximum 12 references per patent,

and to comply with the Focusing Order's definition of "reference" in making their Final Election of Asserted Prior Art.

II. Defendants' Excessive References

The Focusing Order provides a clear directive: "Not later than 14 days after the deadline for service of the Preliminary Election of Asserted Claims, Defendants shall serve a Preliminary Election of Asserted Prior Art, which shall assert no more than twelve (12) prior art references against each patent and not more than a total of sixty (60) references across the Related cases." Dkt. 158 at 2. It provides further instruction on how to count references: "For purposes of this Order, a prior art instrumentality (such as a device or process) and associated references that describe that instrumentality shall count as one reference, as shall the closely related work of a single prior artist." *Id.* at n. 3. Defendants have violated that order in three ways:

- By counting as a single reference multiple, different instrumentalities, along with patents and/or printed publications they contend constitute standalone prior art printed publications (References 5 and 8);
- By counting as a single reference unrelated patents and/or printed publications, apparently
 on the ground that they all originated from the same company (References 1, 2, 3, 4, and
 6), and
- By counting as a single reference unrelated printed publications with at least one common author (References 10 and 11).

Burton Decl. Ex. 2. For the convenience of the Court, a chart showing the references falling into each category is attached to this brief as Appendix A.

A. References improperly combining multiple instrumentalities, and improperly combining said instrumentalities with printed publications and/or patents asserted as independent prior art

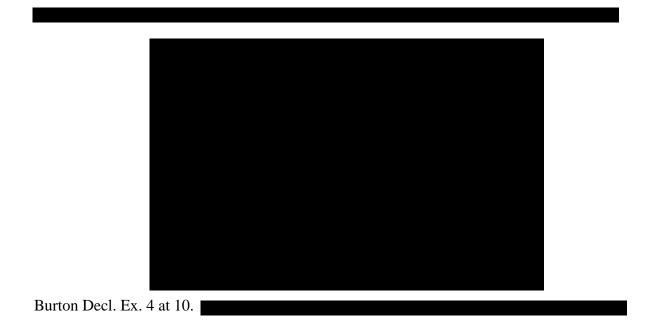
The first category consists of multiple prior art instrumentalities grouped together as a single reference, a violation compounded by the addition of patents and printed publications also alleged to be standalone prior art. In the most egregious example, Defendants count as a single reference an open-ended list of "Antennas that were manufactured by Kathrein and were on-sale and in public use in the United States," listing as examples at least 25 different antennas manufactured by Kathrein, along with Kathrein catalogs (five of which were identified in Defendants' proposed amended invalidity contentions) that they claim are independent printed publications, and three patents. Burton Decl. Ex. 2 at 3:

Reference	Defendants' Description and Listings
8	Kathrein prior art
	• Antennas that were manufactured by Kathrein and that were on-sale and in public use in the United States, including those that fall within the three categories of models identified by Fractus at the January 17, 2019 status conferences hearing. The categories identified by Fractus include: high-frequency models (e.g., 739-129, 739-131, 739-132, 739-134, 739-136, 739-494, 739-495 (AP18-1850/065D/DT2/XP), and 739-496 (AP18-1850/065D/DT6/XP)); low-frequency models (e.g., 739-620, 739-622, 739-646, 732-448, 732-480, AP13-850/065/ADT, AP10-850/105/ADT, AP12-880/065/HV, AP13-880/065/HV, AP13-880/065/XP, BP13-875, and BP16-875); and models that operate in both high frequencies and low frequencies (e.g., 741-239, 741-320, 741-322, 741-326, and 741-327)
	 Kathrein catalogs, datasheets, and patents describing the functionality of the above antennas, including: Gabriel and Göttl '812 (U.S. 6,025,812) Gabriel and Göttl '063 (U.S. 6,195,063) Gabriel and Göttl '720 (U.S. 6,333,720)

Defendants claim they are entitled to count the antennas as a single reference because the "artist" is the company: "Kathrein prior art antenna models are also the closely related work of a single

prior artist—Kathrein." Burton Decl. Ex. 3. But that is not what the Focusing Order says. Instead, each "instrumentality (such as a device or process)" counts as a single reference.

The listed Kathrein antennas are each different. They have different physical characteristics, use different antenna elements, were released to the market at different times, and (as Defendants own election states) cover different frequency bands. Two sample schematics from Defendants' proposed amended invalidity contentions are shown below.





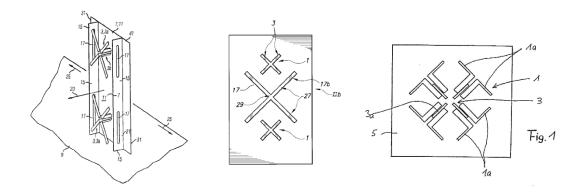
Burton Decl. Ex. 4 at 15. The two models share little in common except that they happen to be

manufactured by the same company.

The inclusion of 25 antennas in a single reference creates a significant burden on Fractus. Full investigation may require purchase of each listed model (at a cost of between \$3,000 and \$7,000 per antenna), testing and teardowns of the antennas, additional discovery into the details of their alleged sale and public use, and technical analysis of the documents provided. Allowing Defendants to multiply the burden on Fractus by counting 25 instrumentalities as a single references would contravene the Focusing Order's purpose.

Defendants are also incorrect to include the "Kathrein catalogs, datasheets and patents" as part of the same patents. In their pending motion to amend their invalidity contentions, Defendants assert that the catalogs and datasheets are *independent* printed publications: "Further discovery is needed from Kathrein, but on information and belief, each of the above documents qualifies as a prior-art under 35 U.S.C. §§ 102(a), (b), and (g)." Burton Decl. Ex. 4 at 4. They therefore are not being utilized as "associated references that describe that instrumentality," but as independent prior art references, and should be counted as such.

Additionally, the three Gabriel and Göttl patents are asserted as independent prior art references, and so too should be counted as such. In any event, they do not "describe the instrumentality." Even if it is the case that some of the patents may cover some of the features in some of the asserted instrumentalities (a fact that is far from clear), that does not make it an "associated reference" that can be counted as part of the same prior art as the antennas themselves. As shown in the exemplary figures below, the three patents cover different inventions for different configurations of antenna arrays:

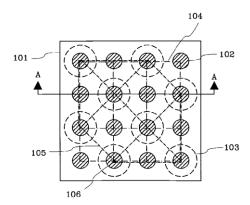


Burton Decl. Ex. 5 (U.S. 6,195,063, U.S. 6,025,812, U.S. 6,333,720). The patents are not related, and claim (as they must) different inventions. The '812 Patent discloses the use of a "decoupling device ... between adjacent radiating element modules," the '063 Patent discloses a "dual-polarized antenna system ... [that has] at least one cruciform radiating element module," while the '720 Patent discloses a "dual-polarized multiband antenna [that] includes first and second radiating element modules having first and second dipole elements." *Id.* None is an "associated reference[s] that describe[s] that instrumentalit[ies]" of the Kathrein antennas. Each patent is a separate prior art reference and should be counted as such.

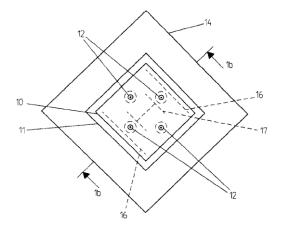
Defendant's Reference 5 is also a similarly improper combination of EMS Wireless "DualPol" antenna arrays, which Defendants claim are "described in, e.g., Runyon (U.S. 5,966,102) and EMS Wireless Annual Reports." Burton Decl. Ex. 2 at 3. Those references are also asserted in the alternative to a patent. Burton Decl. Ex. 6 (U.S. 4,766,440). The alternative election still forces Fractus to prepare its defense for the open category of instrumentalities (EMS Wireless "DualPol" antenna arrays), two US patents, and a group of printed publications (EMS Wireless Annual Reports), even if one group may eventually be dropped.

B. References improperly combining unrelated patents and/or printed publications on the ground that they all originated with the same company

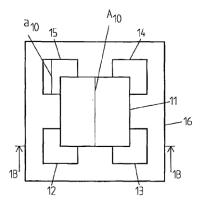
Similar problems permeate five other groupings of patents assigned to the same company under the same "prior art reference." For example, under the grouping "Ericsson prior art relating to arrays of patch antennas for base stations," Defendants count as one "reference" two unrelated patents with entirely different inventors, and another patent application that happens to have one inventor in common with one of the patents. Burton Decl. Ex. 2 at 3. The first Ericsson reference, U.S. Patent No. 6,114,998, discloses "an antenna unit … capable of operating in a satellite communication mode" that "comprises interleaved circular patches:"



Burton Decl. Ex. 7, Fig. 1 (U.S. 6,114,998). The second Ericsson reference, U.S. Patent No. 6,239,750, has an entirely different inventor and does not relate to satellite communications, but rather to base station antennas, and discloses "an antenna arrangement for multi frequency band operation" comprising a first and second antenna element "arranged in a different plane":



Burton Decl. Ex. 8, Fig. 1 & col. 1 ll. 3-8 (U.S. 6,239,750). The third Ericsson reference, patent application WO 98/37592, claims an entirely different configuration of antenna elements:



Burton Decl. Ex. 9, Fig. 1 (WO 98/37592). The three are not the same invention, not "closely related," and not by the same prior artist, and so should not be grouped together as a single reference. Defendants similarly and improperly group together patents from Allen Telecom (Reference 1), Allgon (Reference 2), Andrew (Reference 3), and Hughes Aircraft (Reference 6), all apparently on the basis that patents from inventors employed by the same company are "the closely related work of a single prior artist." Burton Decl. Ex. 3. They are not, and each reference should be separately counted.

C. References improperly combining unrelated printed publications with at least one common author (along with one patent)

Finally, Defendants group together two additional sets of alleged prior art, one consisting

of papers authored by Fractus's lead inventor Carles Puente (and others), the other consisting of papers and a patent that share, among multiple authors, Yoshihide Yamada, along with a patent on which he is an inventor. Each grouping is improperly counted as a single reference. Dr. Yamada's papers, dated from 1991 to 1999, include different co-authors and cover different subject matter. The 1991 paper, "Determining Excitation Coefficients of Dual-Frequency Shaped Beam Linear Array Antennas for Mobile Base Stations," discusses the relationship between element spacing and diffraction lobes in antenna arrays (a concept expressly discussed in the background of the patents-in-suit). Burton Decl. Ex. 10. The article titled "Development Of A Dual-Frequency Base Station Antenna For Cellular Mobile Radios," which has a different lead author, discusses a design for a dual-band array that uses separate monoband elements to transmit and receive on different frequencies. Burton Decl. Ex. 11. The papers on which Dr. Puente is at least one of the authors are also similarly grouped as a single reference.

D. Conclusion

Defendants' grouping of 62 separate instrumentalities, patents and publications into what they mischaracterize as 12 references is improper. Fractus respectfully requests that the Court order (a) immediate compliance with the Focusing Order and require Defendants to select no more than 12 references, as defined in the Focusing Order, per patent, and (b) that in Defendants' final elections that they be required to comply with the Focusing Order's definition of "reference" in electing the allotted eight references per patent.

Dated: March 21, 2019 Respectfully submitted,

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CERTIFICATE OF CONFERENCE

I have complied with the meet and confer requirement of Local Rule CV-7(h). This motion is opposed. Specifically, on March 21, 2019, I met and conferred with counsel for all Carrier Defendants and for Cellmax. I explained the reasons why Defendants' grouping of prior art were improper, and was unable to secure a commitment from Defendants to revise those groupings. I advised counsel for Defendants that given the state of negotiations, their previous refusal to revise their election of prior art, *see* Burton Decl. Ex. 3, and their inability to commit to a subsequent revision, Fractus would move the Court for relief.

/s/ Luke Burton
Luke Burton

CERTIFICATE OF SERVICE

I hereby certify that the foregoing document was served on all counsel of record via electronic mail on this 21^{st} day of March, 2019.

/s/ Michael Ng

CERTIFICATE OF AUTHORIZATION TO FILE UNDER SEAL

I hereby certify that the foregoing document is being filed under seal pursuant to the Protective Order entered in this matter.

/s/ Michael Ng